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July 26, 2018

VIA ELECTRONIC FILING

Marlene Dortch
Secretary
Federal Communications Commission
445 12th Street S.W.
Washington, D.C. 20554

Re: Ex Parte Notice
WC Docket No. 17-84
WT Docket No. 17-79

Dear Ms. Dortch:

On July 26, 2018, Rebecca Ehrlich (Manager Engineering Design, Pepco - an Exelon Utility), Tat-Lin Angus (Manager of Real Estate, Pepco – an Exelon Utility), Nadine Boston (Real Estate Specialist, Pepco – an Exelon Utility), Jim Micco (General Manager of Operations, Potomac Edison – a FirstEnergy Utility), Samantha Cook (Senior Engineering Technician, Baltimore Gas & Electric – an Exelon Utility), and the undersigned, representing the Coalition of Concerned Utilities, met with Jay Schwarz, Wireline Advisor for Chairman Pai, to discuss several issues raised in the draft order dated July 12, 2018 (FCC-CIRC1808-03) in the above-referenced dockets.

The Coalition of Concerned Utilities is composed of 12 investor-owned electric utilities (Arizona Public Service Company, Consumers Energy, Eversource, Exelon Corporation, FirstEnergy Corp., Hawaiian Electric Companies, Kansas City Power and Light, NorthWestern Energy, Portland General Electric, Puget Sound Energy, South Carolina Electric & Gas, and The AES Corporation) which collectively serve approximately 31,000,000 electric customers and own approximately 12,000,000 electric distribution poles.

In its meeting, the Coalition expressed appreciation that, although the results are not ideal, several of its concerns regarding ILEC rates, overlashing and one-touch make-ready were reflected in the draft order's proposed rulings.

The Coalition then addressed two draft decisions that seem not to have been vetted properly. Both would be impractical, and would make it slower and more expensive to install

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new facilities, not faster and less expensive. One would potentially endanger linemen and harm the electric grid.

The first of these draft decisions would require make-ready estimates and final invoices to break down costs on a pole-by-pole basis, and to include not only electric make-ready work but also communications attacher make-ready work. We explained that electric utilities have no idea about the make-ready expenses associated with communications space make-ready work and so cannot supply that information. We added it would be inefficient and unfair to burden utilities with other attacher invoices. We also explained that utilities do not typically provide pole-by-pole make-ready estimates and final invoices. Providing such a break down would be time consuming and expensive, rendering the entire make-ready process slower and more expensive for the new attacher.

The second draft decision we discussed is the serious, potentially dangerous, and otherwise counterproductive proposal to grant an electric space self-help remedy to communications companies, allowing them to hire utility-approved (and other) contractors to perform electric space make-ready work when pole owners cannot meet the make-ready construction deadlines. We predicted this electric space self-help remedy would be available to most new attachers, as the draft order proposes to reduce the already short make-ready construction deadlines by 30 days, rendering the deadline impossible for most utilities to meet.

We explained that OSHA regulations require utility control over electric space work. This means that only the utility can perform the necessary switching and sectionalizing device work, and that utilities need “visibility” of all crews during switching activities.

We explained contractors beholden to communications companies could be pressured to complete work faster, not safer. We explained that new firms would be drawn to the contractor market and that communications companies are not qualified to provide them with proper guidance, training and oversight. We explained that qualified contractors already are in short supply, that communications company control would disrupt this labor market, and that electric utility work, system reliability, and system integrity would suffer. Electric utility design and inspection personnel, also in short supply, could not perform their current duties and oversee communications company activity at the same time. Inspections after the fact would often be infeasible. When they could be performed, they would be expensive and unable to uncover many hidden violations.

Communications company self-help in the electric space would be so objectionable that electric utilities would be encouraged to avoid that result by saving time on make-ready work by discontinuing the long-honored, but time-consuming, practice of expanding capacity by replacing existing poles with taller poles. If utilities were discouraged from voluntarily expanding capacity, then new wireline attachments would become considerably more difficult

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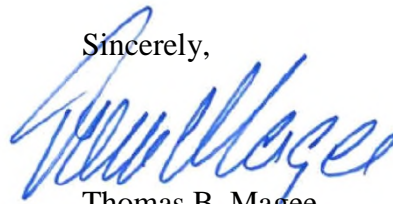
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and expensive, new wireless attachments would lose the benefit of the taller poles utilities currently install for most requests, and the Commission's goals of promoting broadband and 5G services would be unnecessarily frustrated.

Attached hereto are Ex Parte Letters filed by Coalition of Concerned Utilities members FirstEnergy Service Company and Hawaiian Electric Company, Inc., which were distributed during the meeting.

The Coalition of Concerned Utilities has sought throughout this proceeding to be part of the solution to expanding broadband and wireless services. The draft proposal for self-help in the electric space, however, is so potentially dangerous and objectionable that it would complicate that effort.

Sincerely,



Thomas B. Magee
Attorney for the
Coalition of Concerned Utilities

cc: Jay Schwarz

The Honorable Ajit Pai
Chairman
Federal Communications Commission
445 12th Street, Southwest
Washington, DC 20554

Re: *In the Matter of Accelerating Wireline Broadband Deployment by Removing Barriers to Infrastructure Investment, WC Docket No. 17-84*

Dear Mr. Chairman,

I am writing to you today about the Draft Order issued by the Commission on July 12, 2018, regarding rules designed to enhance broadband deployment. While FirstEnergy Corp.'s electric distribution utility operating companies in FCC states (collectively "FirstEnergy") are members of the Coalition of Concerned Utilities, and support all of its comments previously filed in this proceeding, there are a number of issues raised by the Draft Order that deserve further comment before the vote is taken August 2. The most serious of these many issues is self-help in the power space.

First, as explained in CCU's comments in this proceeding, as the owners and operators of a complex electric distribution grid it is imperative that FirstEnergy retain control of the contractors performing make-ready work in the power space. While there are many responsible telecommunications providers who can be trusted to direct contractors' efforts to follow the applicable construction and safety standards, there are also many who will apply relentless pressure to cut corners to increase speed and lower costs. Work in the communications space alone is already quite dangerous, as dozens of workers are badly injured or killed each year. It is abundantly clear to FirstEnergy through years of experience that its telecommunications provider partners simply do not place the same emphasis on safety that FirstEnergy does, and many of them do not have electrical or structural engineers on staff qualified to direct power space construction by contractors. One split-second lack of safety precautions and someone doesn't go home to loved ones that night. It is FirstEnergy's primary objective to prevent injury—not react after it occurs.

FirstEnergy places safety as our #1 priority, and reliability of electric service as #2. Allowing other companies to work on our facilities will seriously jeopardize these priorities. As for safety, FirstEnergy considers OSHA and NESC as the minimum accepted standard for safety—our Company standards often exceed these minimums in order to better protect workers and the public. Will third party self-help contractors—with whom FirstEnergy would not have privity of contract—stringently apply FirstEnergy's safety rules, for just one

example, using “glove and sleeve” for voltages above 15 kV? Many attacher comments and ex parte communications in this proceeding clearly articulate disagreement with—and outright animosity towards—any standard going above and beyond the bare minimums.

Second, even for the responsible actors, it is almost certain that third party oversight of work on electric distribution facilities will reduce reliability of the electric grid and lower the quality of electric service. It is difficult to convey the full complexity of the interconnected grid and the intricacies of coordinating work which often includes scheduled outages for pole attachment work as well as for regular electric system work. Lines are not de-energized at single poles—they are de-energized for entire circuits or sections of circuits, resulting in the deliberate or unplanned re-routing of energy flows onto other circuits. Not infrequently such re-routing implicates transmission lines as well as distribution lines, potentially affecting hundreds or thousands of customers. Without careful coordination, unplanned changes in energy flows are likely to overload circuits and may cause wider area forced outages. Further, FirstEnergy protocols provide for a longer notice of unforced outages to customers—14 days for outages affecting more than 10 customers—nearly three times an attacher’s required notice under the Draft Order. PJM requires *six months* advanced notice for scheduled outages more than four days in duration if there could be an impact on transmission lines.

Illustrating the high standard of reliability expected for electric service, the back-to-back heavy snowstorms that hit New Jersey earlier this year led numerous communities to demand faster restoration of electric service after storm events, while the only complaint about the same delays in restoring broadband seemed to be why there were no bill credits for the lack of service during outages. In every state where FirstEnergy operates, there are statutes, rules and/or standards for electric reliability performance. Electric customers should not have to pay for faster pole attachments with more forced outages of service and reduced notice of scheduled outages.

Self-help in the Draft Order strays far afield from mere attachment to electric *poles* and instead impinges safe and reliable operation of the electric *system*. FirstEnergy does not allow its own contractors to perform any circuit switching beyond a defined set of “simple switching.” Will FirstEnergy be required to accommodate self-help contractors on their schedule, or would they have the right under this order to do their own switching? There is equipment on FirstEnergy’s system, such as certain types of sectionalizing devices, with which even its own contractors simply are not familiar. Will third-party self-help contractors be forcibly permitted under the Draft Order rules to operate these devices? Contractors employed by FirstEnergy to work on its system are viewed as an extension of its own employees, and all of their work is coordinated through at least one internal employee. This goes for engineering, design, and construction. Just as important, FirstEnergy must have “visibility” of all crews working on its system, especially during outage restoration and during operational switching, for both safety and reliability reasons. Self-help in the power space under the Draft Order threatens the viability of such coordination.


Third, setting aside for now the question whether Congress has granted the Commission jurisdiction and authority to order self-help make-ready construction in the power space, FirstEnergy must seriously reconsider its willingness to increase capacity for attachers if it

means reduced control over the safe and reliable operation of its electric system as discussed above. The Draft Order power-space self-help provisions as written would force FirstEnergy to risk loss of control for every expansion of capacity to accommodate new attachments. Congress unambiguously reserved to pole owners the right to deny applications for new attachments due to a lack of capacity. Further, Congress granted the Commission jurisdiction over attachment to the *poles*, not the *electrical equipment* attached to the poles. The Commission cannot experiment with forcing FirstEnergy and other electric distribution utilities to allow telecommunications providers to functionally operate, move, or reconstruct electric wires, transformers, arrestors, cutouts, relays, insulators, and sectionalizers to increase capacity. The jurisdictional implications of expansion of Commission regulatory action from space on poles into electric operations may be of concern to state public utility commissions and the Federal Energy Regulatory Commission as well.

Finally, the coincidence of shortening the make-ready construction deadline by 30 days seems likely to increase the occurrence of missed deadlines and the likelihood of self-help power space make-ready construction, especially to the extent that storm or emergency electric service restoration efforts are not considered part of timeline performance. Together with new “stimulus” funds being earmarked for broadband and small cell deployment, the existing strained contractor resources previously noted by CCU suggests new entrants to the market who may lack industry knowledge and experience in power space engineering and construction—particularly Company-specific standards. These developments will combine to increase the complications discussed above if FirstEnergy’s direct privity of contract is precluded by FCC rules.

In closing, while FirstEnergy anticipates other issues will be raised regarding problems or unanswered questions elsewhere in the Draft Order, it views the self-help make-ready construction in the power space as nothing short of a looming disaster. At an industry conference last year on joint use, one participant commented that “It’s not a question of ‘if’ a communications worker will be injured or killed, it’s ‘when.’” With self-help make-ready in the power space, it’s not a question of if or when, but how many.

Sincerely,



Thomas R. Pryatel, P.E.
Director, Energy Delivery-Operations Services
FirstEnergy Service Company

CC:

Commissioner Michael O’Rielly
Commissioner Brendan Carr
Commissioner Jessica Rosenworcel



Pole Infrastructure Enterprise
PO Box 2750 • Honolulu, HI 96840

July 25, 2018

Via Electronic Filing

Marlene H. Dortch, Secretary
Federal Communications Commission
445 12th Street, Southwest
Washington, DC 20554

*Re: Ex Parte Notice: In the Matter of Accelerating Wireline Broadband Deployment by
Removing Barriers to Infrastructure Investment, WC Docket No. 17-84*

Dear Ms. Dortch:

I am submitting this writing to the Commission today on behalf of the Hawaiian Electric Companies¹ (the “Companies”) to comment on our electric utilities’ specific concerns about the Draft Order issued by the Commission on July 12, 2018, regarding the rules designed to enhance broadband deployment.

The Companies are active members of the Coalition of Concerned Utilities (“Coalition”) and Edison Electric Institute (“EEI”), and support all of their comments previously filed in this proceeding. We also support the Coalition’s and EEI’s in-person discussions held with the Commission and the FCC Wireline Bureau during the pendency of this proceeding. In addition to those comments, the Hawaiian Electric Companies believe it is imperative to submit this independent letter of concern regarding several aspects of the Draft Order that uniquely impact the Companies due to our isolation in the Pacific Ocean and the State-specific circumstances that complicate our ability to comply with the contemplated regulations.

The Companies serve the most isolated population center on the face of the earth, uniquely situated in the middle of the Pacific Ocean, 2,390 miles away from California, the closest mainland U.S.A. state. We are the *only* electric utility serving the islands of O‘ahu, Maui, Moloka‘i, Lana‘i and the island of Hawai‘i, each of which is their own separate electrical grid with no transmission ties to each other. The Companies are proud to maintain five separate robust, thriving, reliable electric utility grids as we continue to honor our State’s commitment to be 100% renewable by 2045. The Companies have taken a bold stance in Hawai‘i, serving as an inviting building block and foundation in the deployment of broadband, CableTV, internet, telephone, IoT, smart grid, and smart cities. Hawai‘i’s isolated islands, yet thriving population and tourism, demands faster, smarter devices to not only live their daily lives, but to push Hawai‘i to the forefront of technology advancement and the continued building of smart,

¹ The Hawaiian Electric Companies are comprised of Hawaiian Electric Company, Inc., Hawai‘i Electric Light Company, Inc. and Maui Electric Company, Limited.

sustainable, and resilient communities. Hawai‘i already serves as a world-class test bed for renewable energy technologies and devices. Because of Hawai‘i’s commitment to 100% renewable energy our Companies demand real-time data collection to smooth voltage and maintain the highest level of reliability, and that is dependent on 5G network deployment. Our logistical constraints and isolation from the U.S. mainland necessitate this letter describing our unique concerns with the Draft Order in its current form.

1. Parties Agree To Collective License Agreement for Hawai‘i

We Request Clarity Regarding Private-Negotiated Solutions: The Companies and the representing attachers in the State of Hawai‘i have embarked on a collective pole attachment licensing agreement, engineering standards, and application process over the last eight months. We have collaborated with a variety of internal and external stakeholders, received input, adjusted protocols and worked together to ensure all third party pole attachers on distribution poles are treated fairly and held to similar standards, and that the attachment process in Hawai‘i is transparent, efficient, and timely. We appreciate the Commission’s comments at the onset of the Draft Order encouraging parties to “reach bargained solutions that differ from our rules”. We also appreciate that the Commission recognizes that each state, or utility’s service territory may have distinct situations and/or distinct community needs that require a departure from the Draft Rules. As thoughtfully laid out below, Hawai‘i is extremely unique in a variety of ways that are not necessarily contemplated in the proposed Draft Order. Given Hawai‘i’s unique circumstances, and the fact that we have been collaboratively working with the attachers for the past year to come up with a solution that is appropriate for Hawai‘i and its distinctiveness, we seek clarification and request a more concrete position by the Commission as to its “encouragements”.

The Companies request that the Commission expressly provide, in the Rules themselves, for fair, transparent, negotiated contractual agreements to control in the event of conflict with the Commission, even if a complaint is later brought to the Commission. We presume, as has been the case in the past, that if a complaint is brought, the Commission would apply the rules set out in this Draft Order, as opposed to the contractually agreed to terms by the complainant. We ask that the Commission expressly provide that where parties have reached bargained solutions that differ from the Draft Order, especially in distinct circumstances and in unique communities, and where those negotiated agreements were entered into after circulation of the Draft Order, the terms of a collaborative, negotiated agreement control.

2. Unique Island Logistics Require Flexibility In The Make-Ready Timeline

Pole Shipping & Inventory Constraint: Every distribution pole erected in Hawai‘i is barged or shipped from the mainland. There are no independent pole manufacturers located in the State of Hawai‘i. Shipping schedules often have long, fixed lead times that become even more inflexible and pose further delays during inclement weather conditions, turbulent seas, or port labor issues. We are beholden to the sea, unpredictable weather patterns, and shipping protocols. Even our inventory yards are constrained by limited acreage to house electric distribution poles of various heights and widths. Due to these warehousing spatial constraints, the Companies forecast our inventory well in advance, and order poles based on our needs for regular maintenance and

system upgrades, traffic-related replacements, and emergency replacements due to tropical storms, hurricanes or other events. Pole shipments are scheduled to keep a maximum stock level at the yard to meet these current needs. These forecasts do not take into account pole replacements needed for wireline and wireless attachments, as those needs are not known until an application is received. Hawai'i cannot merely use emergency stock on hand at the risk to supplying reliable power to the people, businesses and visitors of Hawai'i. The Companies are a fervent supporter and advocate for broadband, wireline and wireless deployment throughout the State and have negotiated over the last several months with ILEC, CLECs, and Cable TV, to provide an ambitious, streamlined process for an aggressive rollout of attachments on distribution pole infrastructure across all five islands. However, reasonable accommodations must be permitted and real world practical extensions of the Draft Order timelines are necessary for Hawai'i, particularly when a pole replacement is required.

Existing Heavily Loaded Poles Are Prevalent: Because of the finite commercial and residential space on our five islands, existing poles are heavily loaded. We have vast amounts of unlivable space, and the locations we do inhabit continue to be more congested; building up, not out. Our densely-populated neighborhoods experience heavy overloading on a majority of our electric distribution poles, already creating potentially hazardous situations of leaning poles, which, if uncorrected, have caused the poles to fall and disrupt power and communication service, as well as damage to property. While we appreciate the advance notice requirement proposed in this Draft Order for overloading, the Companies urge the Commission to require a pole loading analysis be provided at the time of notification by the requesting attacher, and that an appropriate amount of time be given for the utility to review such analysis. The Companies construe the proposed language regarding engineering studies and analysis as putting the onus on the utility to perform the survey, as well as the pole loading analysis, within 15 days of the attacher's notification of overloading. The overloading request just from one single attacher can contain hundreds of poles, in addition to the Companies concurrently handling other attachers' pole attachment and overloading requests. The Companies strongly feel that the attacher should bear the burden of conducting the survey and pole loading analysis and submit this with the notice of overload. Utilities would then have sufficient opportunity to review and ensure public safety and electric distribution reliability.

Transitioning Away From Joint Ownership Model: The Companies' five service territories are in the process of transitioning away from a Joint Ownership/Joint Use business model to a Sole Ownership/Joint Use model. The Companies have an active docket before the Hawai'i Public Utilities Commission to purchase Hawaiian Telcom, Inc's ("Hawaiian Telcom") joint pole interest in electric distribution poles, which is a major step in the conversion process. Through sole-ownership and management of the entire pole, the Companies can streamline and accelerate the attachment process as well as spearhead the removal of 15,000 "double poles" that exist in our State. This is a new role for the Companies, as Hawaiian Telecom has acted as the manager of the communication space for over 50 years. During this ownership and management transition period of attachments in the communication space, the Companies and Hawaiian Telcom have unearthed a variety of discrepancies in standards and a lack of attachment data, record keeping, and notifications to the Companies that was required, but not provided.

The Companies are facing an unwieldy task of cleaning up the pole attachment data on roughly 120,000 electric distribution poles jointly owned by the Companies and Hawaiian Telcom. Cleaning this data in the communication space will allow the Companies to notify and communicate with existing and future attachers in a much more efficient manner regarding applications and Make Ready work. The process of collecting accurate data about the pole attachments will take approximately three years as there are currently many unidentified and potentially illegal attachments, as well as attachments in disrepair or abandoned in the communication space. Additionally, the vast majority of wireline attachments are unmarked and the attachment information to being provided to the Companies is in a paper format for all but three years of attachment data. In order to assist these efforts, the Companies have contracted for a new database program to collect data moving forward and to process attachment requests from initial intake through construction and final inspection. The database program will have an initial basic rollout 4th quarter of 2018, with full capability integration during the third quarter of 2019, while data continues to be cleansed and verified. Our ability in the interim to adhere to a compressed Make-Ready timeline is extremely difficult when ownership and detailed information on existing attachments is not readily available.

Hawai'i PUC Mandates Notice & Comment Period: The Hawai'i Public Utilities Commission has ordered the Companies provide a notice and comment period to affected residences and neighborhood boards in certain situations when the Companies replace a pole with a taller or wider pole in a residential area. This notice and comment period (a minimum of twenty days) constrains the Companies' ability to perform Make-Ready work, and depending on if comments are received from the notice and whether a community appeal is requested and Hawai'i Public Utilities Commission action filed, the time elapsed could extend well beyond the proposed Make-Ready timelines.

3. Self Help Strains An Already Limited Qualified Contractor Pool

Self Help Will Not Speed Up Broadband Deployment In Hawai'i: As with pole inventory, Hawai'i's isolation in the middle of the Pacific Ocean require contractors, their trucks and their equipment to arrive by plane or ship/barge; again beholden to the sea, the weather, and the shipper's schedule. The qualified workforce necessary to work in and above the communication space is extremely limited on O'ahu, and is exceptionally difficult to find in Maui, Moloka'i, Lana'i and the island of Hawai'i. Of course, the Companies employ qualified workers to work in the electric space, and thus highly prefer to be the ones working in that space. When times require additional help or during emergency situations, the Companies do have three approved contractors to turn to for assistance; however, none of them are headquartered in Hawai'i. Most of the contractors must arrange to travel to Hawai'i to perform the work, and all of their related equipment and trucks must be shipped to Hawai'i. The Self Help initiative proposed by the Commission does not speed up deployment in Hawai'i because the manpower and logistics to get them to Hawai'i are time-consuming, require extensive planning, and too expensive unless the attachers guarantee a consistent steady flow of work. Even then, trucks would most likely be housed on O'ahu, and similar difficulties would continue to exist in scheduling contractors to work on the other four islands in the Companies' service territories.

Self Help Imposes Grave Concern On Isolated Grids: As other electric utilities have so alarmingly pointed out, Self Help in the electric space imposes grave risk to the safety and reliability of the electric system. As with all electric utilities, our core mission is to provide safe and reliable electric service to our customers. While we appreciate that all electric utilities rightfully recognize the severity of the risk imposed with the proposed rule, the Companies believe the safety and reliability risks that could potentially transpire under Self Help in the electric space is *magnified ten-fold for our isolated islands with isolated electric grids*.

4. Pole By Pole Make-Ready Estimates & True-Up Requirements Are An Onerous Burden

True-Up Unnecessary: The extensive amount of work in creating pole by pole Make-Ready estimates and true-ups in the electric space, with an obligation on the utility of coordinating estimates and true-ups from existing attachers for Make-Ready work outside the electric space on a per pole basis, is highly burdensome and a burdensome cost in light of the current practices at the Companies. Cost estimates are agreed to as part of the Make-Ready process. The new attacher, in agreeing to the cost estimate, has an opportunity to question charges at that stage in the process. Utilities, existing attachers and new attachers all have the opportunity to agree to be bound by that estimate (which ultimately the new attacher accepts in the process), and no true-up should be required. The new attacher can request a pole by pole estimate if in dispute with the estimate. Providing a pole by pole estimate would slow down telecommunications deployment efforts. It also creates a paperwork/billing bottleneck for true-up. An extensive reconciliation would be required, on a pole by pole basis, with the utility involved in disputes on the estimates between the new and existing attachers.

5. Requests On Miscellaneous Items

Effective Date: We request the Commission to state a date certain that the Draft Order become effective, and provide a one year period to comply with the proposed new rules. Hawai'i's unique circumstances will make it extremely difficult to implement such rules with an effective date any shorter than one year from publication in the Federal Register. The attachers and contractors doing business in Hawai'i may also find that their unique experiences, requirements, processes require the parties to agree to terms different than what is being proposed by the Commission (i.e. both parties agreeing to rely on Make-Ready estimates instead of actuals).

Pre Existing Violations: The Companies agree that new attachers are not responsible for the costs associated with fixing pre-existing violations of other attachers, but reference is made to poles at page 52, paragraph 112 of the Draft Order. The Companies request clarification of the insertion of poles into that compliance directive. In the event a pole is deemed overloaded, inadvertently occurring earlier through another attachment, the new attacher should be responsible for the costs. In this scenario, the old attacher would only have been required to bring the pole up to standard of max capacity, thus the new attacher would have paid the costs it is now presented with for a new pole.

The Companies appreciate the time and effort the Commission and all stakeholders have dedicated throughout this proceeding. Through the Coalition, EEI, and the internal and external stakeholders here in Hawai'i, the Companies have been active in advancing the deployment broadband, CableTV, internet, telephone, IoT, smart grid, and smart cities throughout the islands of Hawai'i. We are here to assist in that deployment, but believe the Companies' unique position in the Pacific Ocean warrants a closer look at how the parties, stakeholders, and communities in Hawai'i can realistically and efficiently achieve such success.

Sincerely,

A handwritten signature in black ink, appearing to read "Mindy E. Hartstein". The signature is fluid and cursive, with a long horizontal stroke at the end.

Mindy E. Hartstein
Director, Pole Infrastructure Enterprise
Hawaiian Electric Company, Inc.